

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A feedthrough assembly for an electrochemical cell, comprising:

a cover having a top surface and a bottom surface and a hole through the cover
~~formed therethrough~~;

an insulator having a top surface and a bottom surface and a hole through the
insulator ~~formed therethrough~~; and

a pin ~~comprising a pin shaft~~; having a pin shaft and a pinhead with ~~having~~ a
larger diameter than the said pin shaft; wherein

a first portion of the said insulator bottom surface is brazed to the said top surface
the said case cover;

a second portion of the said insulator bottom surface is brazed to a said top
surface of the said pinhead.

2. (currently amended) The feedthrough assembly of claim 1, wherein a portion of the
~~said~~ pin extends into the said ~~insulator~~ hole through the insulator.

3. (currently amended) The feedthrough assembly of claim 1, wherein a portion of the
~~said~~ pin extends above the said ~~insulator~~ hole through the insulator.

4. (currently amended) A sealed battery, comprising:

a battery case;

a positive electrode within the said case;

a negative electrode within the said case;

an electrolyte within the said case; and

a feedthrough of claim 1 sealing the said case, wherein the said pin is electrically
coupled to one of the said electrodes.

5. (currently amended) The battery of claim 4, wherein the said positive and negative
electrodes are wound around the said pin.

6. (currently amended) A feedthrough assembly for an electrochemical cell, comprising:

a cover having ~~a hole formed therethrough, said hole having~~ a hole surface that defines a hole through the cover;

an insulator having a top surface, ~~and~~ a bottom surface, and a hole ~~formed therethrough~~ through the insulator; and

a one-piece pin comprising a pinhead and a pin shaft, ~~the said~~ pin shaft extending through ~~the said~~ insulator hole and through ~~the said~~ cover hole, ~~the said~~ pinhead having a larger diameter than ~~the said~~ pin shaft; wherein

~~the said~~ bottom surface of ~~the said~~ insulator is brazed to a top surface ~~the said case~~ cover; and

~~the said~~ insulator is brazed to ~~the said~~ pin.

7. (currently amended) The feedthrough assembly of claim 6, wherein ~~the said~~ top surface of ~~the said~~ insulator is brazed to an underside of ~~the said~~ pinhead.

8. (currently amended) The feedthrough assembly of claim 7, wherein ~~the said~~ insulator is brazed to a portion of ~~the said~~ pin shaft.

9. (currently amended) The feedthrough assembly of claim 6, wherein ~~the said~~ pinhead has a larger diameter than ~~the said~~ cover hole.

10. (currently amended) The feedthrough assembly of claim 6 wherein ~~the said~~ pinhead and ~~the said~~ pin shaft are formed of one piece of metal.

11. (canceled)

12. (currently amended) The feedthrough assembly of claim 6, wherein ~~the said~~ pin shaft has a diameter of about 0.1 mm to about 3 mm.

13. (currently amended) The feedthrough assembly of claim 6, wherein ~~the said~~ insulator includes ~~comprises~~ a nonglass ceramic.

14. (currently amended) A ~~sealed~~ battery, comprising:

- a battery case;
- a positive electrode within the said case;
- a negative electrode within the said case;
- an electrolyte within the said case; and
- a feedthrough of claim 6 sealing the said case, wherein the said pin is electrically coupled to one of the said electrodes.

15. (currently amended) A feedthrough assembly for an electrochemical cell, comprising:

- a cover having a ~~hole formed therethrough, said hole having a hole surface that defines a hole through the cover;~~

- an insulator having a top surface and a bottom surface and a hole ~~formed therethrough~~ through the insulator, and an outer surface in the hole through the cover ~~having a diameter about the same diameter as said cover hole;~~ and

- a pin comprising a pinhead and a pin shaft, the said pin shaft extending through the said insulator hole and through the said cover hole, the said pinhead having a larger diameter than the said pin shaft; wherein

- ~~said bottom surface of said insulator is brazed to a top surface said case cover;~~
and

- the said insulator outer surface is brazed to the said ~~cover~~ hole surface.

16. (currently amended) The feedthrough assembly of claim 15, wherein the said insulator has a thickness that is about the same as a thickness of the said cover in the region of the ~~cover~~ hole through the cover.

17. (currently amended) The feedthrough assembly of claim 15, wherein the said top surface of the said insulator is brazed to an underside of the said pinhead.

18. (currently amended) The feedthrough assembly of claim 17, wherein the said insulator is brazed to a portion of the said pin shaft.
19. (currently amended) The feedthrough assembly of claim 15, wherein the said pinhead and the said pin shaft are formed of one piece of metal.
20. (currently amended) The feedthrough assembly of claim 15, wherein the said pinhead and the said pin shaft are formed of more than one piece of metal.
21. (currently amended) The feedthrough assembly of claim 15, wherein the said pin shaft has a diameter of about 0.1 mm to about 3 mm.
22. (currently amended) The feedthrough assembly of claim 15, wherein the said insulator includes ~~comprises~~ a nonglass ceramic.
23. (currently amended) A sealed battery comprising:
 a battery case;
 a positive electrode within the said case;
 a negative electrode within the said case;
 an electrolyte within the said case; and
 a feedthrough of claim 15 sealing the said case, wherein the said pin is electrically coupled to one of the said electrodes.
24. (currently amended) The battery of claim 23, wherein the said positive and negative electrodes are wound around the said pin.
25. (currently amended) A method for making a feedthrough assembly, comprising:
 providing a ~~case~~ cover having a hole through the cover ~~formed therethrough, the said hole having a hole surface~~;
 providing an insulator having a top surface, ~~and~~ a bottom surface, and a hole through the insulator ~~formed therethrough~~;

providing a one-piece pin comprising a pinhead and a pin shaft, the said pinhead having a larger diameter than the said pin shaft;

brazing the said bottom surface of the said insulator to a top surface of the said cover;

positioning the said pin shaft through the said insulator hole in the insulator and through the said cover hole in the cover; and

brazing the said pin to the said insulator.

26. (currently amended) The method of claim 25, wherein the said top surface of the said insulator is brazed to an underside of the said pinhead.

27. (currently amended) The method of claim 25, wherein the said insulator is brazed to a portion of the said pin shaft.

28. (currently amended) The method of claim 25, wherein the said pinhead has a larger diameter than the said cover hole through the cover.

29. (currently amended) A method for making a battery comprising:

providing a battery case;

housing a positive electrode within the said case;

housing a negative electrode within the said case;

housing an electrolyte within the said case; and

making a feedthrough according to the method of claim 25, coupling one of the electrodes to the pin.

30. (currently amended) A method for making a feedthrough assembly for an electrochemical device, comprising:

providing a ~~case~~ cover for the electrochemical device, ~~the case having a hole formed therethrough, said hole~~ having a hole surface that defines a hole through the cover;

providing an insulator having a top surface, ~~and~~ a bottom surface, ~~and~~ a hole through the insulator formed therethrough, and an outer surface having a diameter about the same diameter as the said cover hole through the cover;

providing a pin comprising a pinhead and a pin shaft, the said pinhead having a larger diameter than the said pin shaft;

brazing the said insulator outer surface to the said cover hole surface;

positioning the said pin shaft through the said insulator hole and through the said cover hole; and

brazing the said pin to the said insulator.

31. (currently amended) The method of claim 30, wherein the said top surface of the said insulator is brazed to an underside of the said pinhead.

32. (currently amended) The method of claim 31, wherein the said insulator is brazed to a portion of the said pin shaft.

33. (currently amended) A method for making a battery, comprising:

providing a battery case;

housing a positive electrode within the said case;

housing a negative electrode within the said case;

housing an electrolyte within the said case; and

making a feedthrough according to the method of claim 30, coupling one of the electrodes to the pin.

34. (new) The method of claim 25, wherein the pinhead and the pin shaft are formed of one piece of metal.